

**AMENDMENTS TO THE CLAIMS**

1. (Currently amended) An apparatus for use in providing RF shielding for a nuclear magnetic resonance (NMR) apparatus comprising a substantially cylindrical NMR magnet having a patient-end surface, a service end and a cryostat with a radio-opaque portion, the apparatus comprising:

a radio-opaque holder having a rigid surface defining an opening at a magnet end of the holder that substantially matches an opening defined by the patient-end surface of the NMR magnet, the rigid surface of the holder configured to abut completely and adjoin to the patient-end surface of the NMR magnet to form an electrical coupling between the holder and the radio-opaque portion of the cryostat;

wherein, when the radio-opaque portion of the cryostat is electrically coupled to the holder and to a radio-opaque covering adjoining the service end of the NMR magnet, the holder, the radio-opaque portion of the cryostat and the radi-opaque covering form a substantially complete and substantially continuous RF shield operative to prevent RF signals from interfering with an NMR procedure conducted using the NMR magnet.

2. (Original) The apparatus of claim 1, wherein the holder comprises a bottom portion comprising RF shielding.

3. (Original) The apparatus of claim 2, wherein the holder further comprises a canopy comprising RF shielding.

4. (Original) The apparatus of claim 2, wherein the holder further comprises a patient end cap comprising RF shielding.

5. (Original) The apparatus of claim 3, wherein the canopy removably attaches to the bottom portion.

6. (Original) The apparatus of claim 2, wherein the bottom portion comprises apertures.

7. (Original) The apparatus of claim 4, wherein the patient end cap comprises apertures.

8. (Currently amended) The apparatus of claim 1, further comprising a positioning means, attached to the holder, for positioning the holder relative to the service end of the NMR magnet.

9. (Currently amended) The apparatus of claim 8, wherein the positioning means comprises a support configured to support the holder and means for locomotion attached to the support.

10. (Original) The apparatus of claim 9, wherein the means for locomotion comprises wheels.

11. (Original) The apparatus of claim 9, wherein the means for locomotion comprises rollers.

12. (Original) The apparatus of claim 1, further comprising a patient support unit.

13. (Original) The apparatus of claim 12, wherein the patient support unit comprises an RF transmitter antenna and an RF receiver antenna.

14. (Original) The apparatus of claim 12, wherein the patient support unit comprises an RF coil.

15. (Original) The apparatus of claim 12, wherein the patient support unit comprises a support configured to hold an animal.

16. (Original) The apparatus of claim 12, wherein the patient support unit comprises a support configured to hold a human.

17. (Original) The apparatus of claim 15, wherein the support is configured to hold an animal in an inverted position.

18. (Original) The apparatus of claim 17, wherein a cross section of the support is configured to substantially match the curvature of an animal's spine.

19. (Currently amended) The apparatus of claim ~~[[18]]~~ 17, wherein a cross section of the support is substantially U-shaped.

20. (Currently amended) The apparatus of claim ~~[[18]]~~ 17, wherein a cross section of the support is substantially V-shaped.

21. (Original) The apparatus of claim 18, wherein the patient support unit comprises an RF transmitter antenna and an RF receiver antenna.

22. (Original) The apparatus of claim 18, wherein the patient support unit comprises an RF coil.

23. (Original) The apparatus of claim 22, wherein the RF coil comprises a non-planar coil.

24. (Currently amended) The apparatus of claim ~~[[23]]~~ 22, wherein a cross section of the RF coil substantially matches a cross section of the support.

25. (Currently amended) The apparatus of claim ~~[[23]]~~ 22, wherein the RF coil comprises a plurality of loops.

26. (Currently amended) The apparatus of claim ~~[[23]]~~ 22, wherein the RF coil comprises an upper RF coil connected to a lower RF coil.

27. (Cancelled)

28. (Original) The apparatus of claim 15, wherein the patient support unit comprises straps for holding an animal.

29. (Previously presented) The apparatus of claim 1, wherein the holder is configured to hold and support the body of an animal patient.

30. (Previously presented) The apparatus of claim 1, wherein the magnet is configured to remain stationary while a patient is moved wholly or partly into the cavity of the magnet.

31-32. (Cancelled)

33. (Previously presented) The apparatus of claim 1, wherein the RF shield is configured to prevent all RF signals that could interfere with a nuclear magnetic resonance measurement from passing from an area outside the RF shield to an area inside the RF shield.

34. (Cancelled)